## NEW COMBINATIONS IN MEXICAN SPECIES OF EUPATORIEAE (ASTERACEAE)

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## **ABSTRACT**

In order to accommodate a revised floristic study of the tribe Eupatorieae for México, the following new combinations are proposed: Bartlettina calderonii (B.L. Turner) B.L. Turner (=Eupatorium calderonii B.L. Turner); B. lanicaulis (B.L. Rob.) B.L. Turner (=Eupatorium lanicaule B.L. Rob.);
B. xalapana (B.L. Turner) B.L. Turner (=Eupatorium xalapanum B.L. Turner); Chromolaena guiengolensis (L. Torres & Villaseñor) B.L. Turner (=Eupatorium guiengolense L. Torres & Villaseñor); Chromolaena tamaulipasensis (King & H. Rob.) B.L. Turner (=Viereckia tamaulipasense King & H. Rob.); Critonia microdon (B.L. Rob.) B.L. Turner (=Eupatorium microdon B.L. Rob.); Koanophyllon galeana (B.L. Turner) B.L. Turner (=Eupatorium galeanum B.L. Turner); Koanophyllon peninsularis (Brandegee) B.L. Turner (=Eupatorium peninsulare Brandegee); Kyrsteniopsis eriocarpa (B.L. Rob. & Greenm.) B.L. Turner (=Eupatorium eriocarpum B.L. Rob. & Greenm.); Kyrsteniopsis heathiae (B.L. Turner) B.L. Turner (=Eupatorium heathiae B.L. Turner); Kyrsteniopsis iltisii (King & H. Rob.) B.L. Turner (=Critonia iltisii King & H. Rob.; Kyrsteniopsis perpetiolata King & H. Rob. (=Pseudokyrsteniopsis perpetiolata King & H. Rob.); Kyrsteniopsis spinaciifolia (DC.) B.L. Turner (=Bulbostylis spinaciifolia DC.).

KEY WORDS: Asteraceae, Eupatorieae, México, Bartlettina, Chromolaena, Critonia, Eupatorium, Koanophyllon, Kyrsteniopsis, nomenclature

In connection with a reedited revisionary study of the tribe Eupatorieae for México (Turner 1997), and to accommodate an ongoing inventory of the comps of México, the following new combinations are proposed.

Bartlettina calderonii (B.L. Turner) B.L. Turner, comb. nov. BASIONYM: Eupatorium calderonii B.L. Turner, Phytologia 67:111. 1989.

Turner (1997) positioned this poorly known taxon in the *Bartlettina* alliance of *Eupatorium* (s.l.).

Bartlettina lanicaulis (B.L. Rob.) B.L. Turner, comb. nov. BASIONYM: Eupatorium lanicaule B.L. Rob., Proc. Amer. Acad. Arts 35:336. 1900. Critonia lanicaulis (B.L. Rob.) King & H. Rob.

I follow the suggestions of Whittemore (1985) in positioning this taxon in the *Bartlettina* assemblage.

- Bartlettina xalapana (B.L. Turner) B.L. Turner, comb. nov. BASIONYM: Eupatorium xalapanum B.L. Turner, Brittonia 37:376. 1985.
- King & Robinson (1987) placed this taxon in synonymy with Bartlettina tamaulipana but I believe they err in this disposition.
- Chromolaena guiengolense (L. Torres & Villaseñor) B.L. Turner, comb. nov. BASIONYM: Eupatorium guiengolense L. Torres & Villaseñor, Acta Bot. Mex. 23:47. 1993.
- Chromolaena tamaulipasensis (King & H. Rob). B.L. Turner, comb. nov. BASIONYM: Viereckia tamaulipasensis King & H. Rob, Phytologia 31:118. 1975. Eupatorium tamaulipasense (King & H. Rob.) B.L. Turner.

As noted in Turner (1997), this taxon is difficult to position, although I favor an alliance with the *Chromolaena* complex.

Critonia microdon (B.L. Rob.) B.L. Turner, comb. nov. BASIONYM: Eupatorium microdon B.L. Rob., Proc. Amer. Acad. Arts 54:252. 1918. Critoniadelphus microdon (B.L. Rob.) King & H. Rob.

For additional comments on the nomenclature of this taxon see Turner (1997).

- Koanophyllon galeana (B.L. Turner) B.L. Turner, comb. nov. BASIONYM: Eupatorium galeanum B.L. Turner, Phytologia 72:365. 1992.
- Koanophyllon peninsularis (Brandegee) B.L. Turner, comb. nov. BASIONYM: Eupatorium peninsulare Brandegee, Erythea 7:4. 1899. Critonia peninsularis (Brandegee) King & H. Rob.

I follow the suggestions of Whittemore (1986) in positioning this taxon with the Koanophyllon alliance of Eupatorium (s.l.).

- Kyrsteniopsis eriocarpa (B.L. Rob. & Greenm.) B.L. Turner, comb. nov. BASIONYM: Eupatorium eriocarpum B.L. Rob. & Greenm., Proc. Amer. Acad. Arts 32:2. 1896. Critonia eriocarpa (B.L. Rob. & Greenm.) King & H. Rob.
- Kyrsteniopsis heathiae (B.L. Turner) B.L. Turner, comb. nov. BASIONYM: Eupatorium heathiae B.L. Turner, Phytologia 69:122. 1990. Adenocritonia heathiae (B.L. Turner) King & H. Rob.
- Kyrsteniopsis iltisii (King & H. Rob.) B.L. Turner, comb. nov. BASIONYM: Critonia iltisii King & H. Rob., Phytologia 39:137. 1978. Eupatorium iltisii (King & H. Rob.) Whittemore

This taxon is closely related to *Kyrsteniopsis eriocarpa*, the combination of which is made above.

Kyrsteniopsis perpetiolata (King & H. Rob) B.L. Turner, comb. nov. BASIONYM: Pseudokyrsteniopsis perpetiolata King & H. Rob., Phytologia 27:241. 1973. Eupatorium perpetiolatum (King & H. Rob.) B.L. Turner.

This taxon was treated within the *Kyrsteniopsis* alliance by Turner (1997).

Kyrsteniopsis spinaciifolia (DC.) B.L. Turner, comb. nov. BASIONYM: Bulbostylis spinaciifolia DC., Prodr. 5:139. 1836. Critonia spinaciifolia (DC.) King & H. Rob. Eupatorium spinaciifolium (DC.) A. Gray.

I follow Whittemore (1986) in assigning this taxon to the Kyrsteniopsis alliance of Eupatorium (s.l.).

## LITERATURE CITED

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